



The Leader in Clustered Storage

Isilon IQ Intelligent Clustered Storage System



The Ideal Solution for the Exploding Growth of Unstructured and File-Based Enterprise Data

Isilon® IQ clustered storage systems are built from the ground up for data intensive businesses, high performance environments and large-scale archives such as those in oil and gas, media and entertainment, Internet services, manufacturing, life sciences, and government.

Applications using video, audio, images, PDFs, reference information, archive data and other large unstructured files have requirements that traditional storage systems were not designed for. This data consumes large amounts of storage capacity, grows much faster than traditional data stores and requires high throughput and often high concurrency from a single file system. Isilon Systems' award-winning Isilon IQ products are the first clustered storage systems designed specifically for unstructured and file-based data, and enable businesses to accelerate productivity, slash costs and unlock new revenue streams.

Isilon IQ combines Isilon's intelligent distributed file system software — OneFS® — with best-of-breed, industry-standard hardware to create a single file system that delivers unsurpassed reliability, scalability, performance and value. Isilon IQ is the first clustered storage system that can be seamlessly grown from 4-528 terabytes in a single file system and scaled to more than 7 Gigabytes/second of throughput.

The Isilon IQ clustered storage product line addresses enterprises' full spectrum of storage needs – from the highest performance tier-1 applications to tier-2 nearline archive, disk-to-disk backup and disaster recovery. Powered by OneFS, the Isilon IQ family of products creates a single pool of expandable storage that is easy to install and grow — once racked, a 10, 50 or 100+ terabyte cluster takes less than 10 minutes to configure and set up, and capacity can be added on the fly in less than 60 seconds with no downtime. The Isilon product line is comprised of the Isilon IQ 1920, 3000, 4800 and 6000 platform nodes, and the Isilon EX 6000 and Isilon IQ Accelerator extension nodes. This flexible product line satisfies customer's varying capacity and performance needs for all unstructured data and enterprise file-based information. In addition, Isilon's unique TrueScale™ technology enables customers to scale both performance and capacity linearly or independently based on application or workflow needs.

KEY FEATURES

- Distributed file system creates a single, shared global namespace
- First and only truly symmetrical clustered storage architecture
- System can scale from 4–528TB in a single file system
- Unmatched aggregate throughput from a single file system with more than 7 Gigabytes/second
- TrueScale™ enables linear and independent scaling of both capacity and performance
- Support for InfiniBand® or Gigabit Ethernet for intracluster communication
- Industry leading high availability for clustered storage systems
- Powerful, easy-to-use web-based management
- 60-second scaling of both capacity and performance
- Built-in SmartConnect application/client connection load balancing
- Industry-standard protocol support (NFS, CIFS, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS)
- Full support for SyncIQ™ asynchronous replication software

ISILON IQ: Intelligent Clustered Storage

Smart Software

The Isilon IQ family of products is the first intelligent clustered storage solution to pack a powerful storage server and automated software features into self-contained nodes that combine to work together in a single global namespace. Intelligent software automates previously manual tasks, providing unprecedented simplicity for scaling performance and capacity for rapidly growing data stores. Comprised of platform and extension nodes, the Isilon IQ product line enables data-intensive customers to maximize their budgets by easily expanding storage on a modular “pay as you grow” basis.

Truly Distributed, Single Global Namespace. Unlike simple namespace aggregation, Isilon’s OneFS distributed file system intelligently stripes data across nodes in a cluster to create a single, shared pool of storage that can be used across a wide range of applications, including the production, analysis, delivery and archiving of unstructured and file-based data.

Automatic Data Migration. As new nodes and capacity are added to a cluster, Isilon IQ’s exclusive AutoBalance feature automatically balances data across all nodes in a cluster in real time, removing throughput bottlenecks, maximizing performance and storage utilization, and eliminating downtime. With Isilon IQ it is no longer necessary to manually migrate data or change application logic as you scale.

Industry Leading Performance. Linearly or independently scale the total throughput and performance of your Isilon IQ storage cluster by adding Isilon IQ platform or IQ Accelerator nodes to achieve more than 7 Gigabytes/second of total throughput from a single file system.

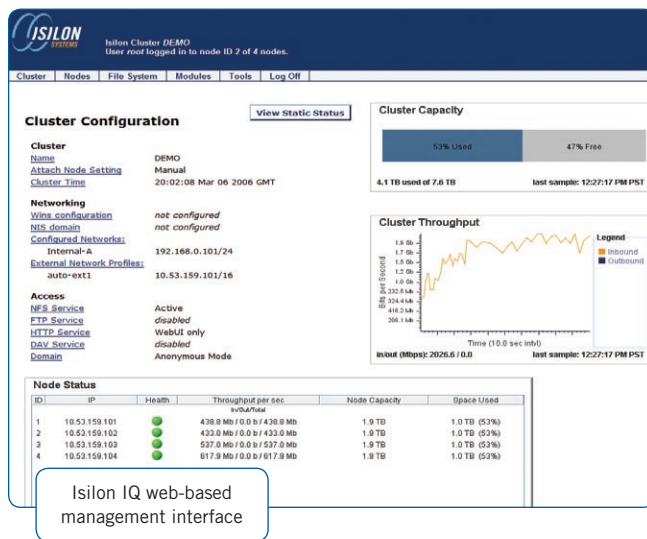
High Throughput and High Concurrency. Isilon IQ supports high-performance InfiniBand® for intracluster communication and is ideal for high throughput, highly concurrent environments where clusters of Windows®, Unix, Linux and/or Apple® Macintosh clients require fast read and write access to a large, shared pool of data. The unique SmartCache capability leverages OneFS features including its fully distributed file system, file striping and large globally coherent memory cache to deliver unmatched total aggregate throughput from a single file system.

High Reliability, Self-Healing and Advanced Data Protection. With state of the art FlexProtect-AP, administrators can set data protection policies on the fly at the cluster, directory or file levels. With Isilon IQ, data is automatically protected across the entire cluster using all available resources. In the event of multiple drive or node failures, N+2 protection ensures all data remains 100% available and is rebuilt to any free space throughout the cluster — capacity is not lost to “recovery drives” and failed drives can be rebuilt in less than one hour.

Largest Digital Archives. Coupled with an Isilon IQ clustered storage node, Isilon EX 6000 storage extension nodes provide an unmatched solution for digital archiving, nearline storage, disk-to-disk backup and disaster recovery.

Intelligent Client Connection Load Balancing. To maximize performance for users and applications, Isilon IQ’s exclusive SmartConnect feature enables client and application connections to be load balanced across all Isilon IQ nodes within a cluster. Through intelligent software policies, and without the necessity of installing cumbersome client-side drivers, SmartConnect simplifies the management and maximizes the performance for large numbers of clients that access Isilon IQ clusters.

Powerful, Simple Web-Based Management. Isilon IQ makes managing large data stores simple with its web-based management interface for configuring, monitoring and managing an Isilon IQ cluster. From a central web-based console, Isilon IQ provides a real-time, single level of management for cluster performance, capacity utilization, quotas, monitoring, diagnostics and management of replication jobs using SyncIQ. Using the web interface, nodes can be added or removed from the cluster with a click of the mouse.





Intelligent Inside and Out

Today's IT organizations face numerous challenges, including the ongoing struggle to efficiently manage, grow and optimize storage infrastructures. With its Isilon IQ family of clustered storage systems, Isilon is delivering highly scalable and flexible clustered solutions where most administrative tasks are handled by an intelligent software layer.

Fully Symmetric, Modular System. Each modular, self-contained Isilon IQ platform node contains disk capacity along with a powerful storage server, CPU, memory and network connectivity, all in a compact 2U rack-mountable system. As additional Isilon IQ platform nodes are added to a cluster, all aspects of the cluster scale linearly, including capacity, throughput, memory and CPU processing power. Isilon IQ nodes automatically work together, harnessing their collective power into a single unified storage system.

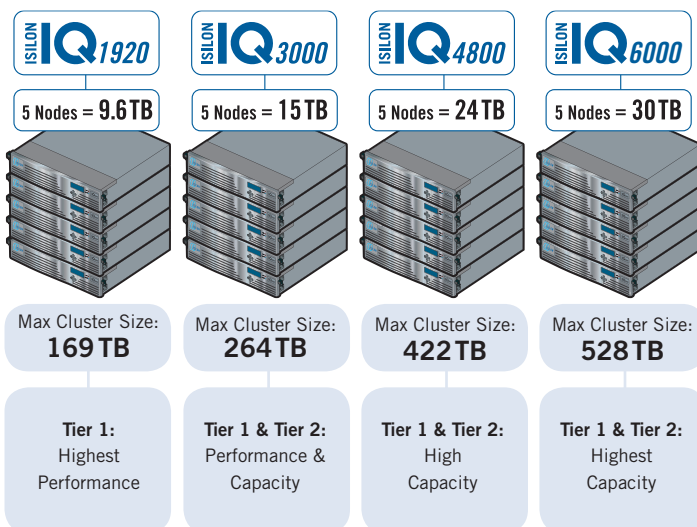
Scale in less than 60 Seconds. Isilon IQ delivers the unparalleled ability to add storage capacity, performance or both in less than 60 seconds without downtime or application changes. Newly added nodes joining a cluster automatically inherit existing policies and configuration settings and Isilon's AutoBalance feature automatically stripes data across the newly expanded cluster, eliminating the downtime traditional storage systems require when adding capacity.



Built for Massive Growth. Isilon IQ's clustered architecture and OneFS distributed file system easily scale from 270MB/second to more than 7 Gigabytes/second of throughput and from 4 to more than 500 terabytes of capacity for a single file system. With Isilon's built-in TrueScale™ technology, storage capacity, system performance and throughput can be scaled linearly or independently to meet the most demanding capacity and performance requirements.

Inherent High-Availability. Isilon IQ's modular design eliminates the need to make trade-offs between availability and performance. All data in an Isilon IQ cluster remains fully available for applications even in the unlikely event of multiple disk or node failures. Unlike traditional systems which require the purchase of expensive components such as redundant file servers, volume manager(s) and failover software, these features are inherent in Isilon IQ's clustered architecture and OneFS distributed file system. Additionally, using the most advanced predictive software intelligence, OneFS automatically detects at-risk components and preemptively rebuilds data to ensure 100 percent data and cluster reliability.

Plug and Store. Once racked, an Isilon IQ cluster can be installed, configured and online in less than 10 minutes. Industry standard protocols, such as NFS, CIFS, HTTP and FTP allow customers to easily store and access data using Windows, Linux, UNIX or Apple Macintosh systems. Customers may also easily backup and restore cluster data using the Network Data Management Protocol (NDMP), monitor cluster activity using SNMP, and authenticate file access using LDAP, ADS, and NIS.





ISILON: The Leader in Clustered Storage

The explosion in unstructured and file-based data is driving leading companies in data intensive markets, such as oil and gas, media and entertainment, Internet services, manufacturing, life sciences and government, to seek a storage solution that is specifically designed for their unique requirements. Isilon IQ combines Isilon's intelligent, distributed file system — OneFS — with best-of-breed, industry-standard hardware to create a single global namespace that delivers unsurpassed reliability, scalability, performance and value.

Isilon IQ offers decreased complexity, reduced risks and a simplified management interface that significantly lowers total cost of ownership. Isilon's intelligent technology and single expandable global namespace enable customers to directly manage 1000 terabytes as easily as one terabyte, and greatly reduces risk by eliminating unnecessary complexity. As both the sheer volume and the strategic business value of enterprise data and archive information continue to rise, storage clusters are becoming increasingly important in relieving those pressures felt by IT organizations.

For more information about how Isilon IQ can improve your bottom line, contact an Isilon sales representative or Isilon Smart Partner reseller.

Isilon Systems, Inc.
3101 Western Avenue
Seattle, WA 98121
<http://www.isilon.com>

Toll-Free: 877-2-ISILON • **Phone:** +1-206-315-7602
Fax: +1-206-315-7501 • **Email:** sales@isilon.com

